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EXAMINER
SMARTH, GERALD A

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/615,764	PARRY ET AL.
	Examiner	Art Unit	
	GERALD SMARTH	2446	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>18 December 2008</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,2,7-15,25-29 and 41-52</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,2,7-15,25-29 and 41-52</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.　　The instant application having Application No. 10/615764 has a total of 31 claims

pending in the application; there are 4 independent claims and 27 dependent claims, all

of which are ready for examination by the examiner.

2. Claims 1-2, 7-16, 25-28, 41, 45-47, & 51-52 are presented for examination. Claims 1,

7, 41, 47 are independent claims. The remaining claims are dependent on claims 1, 7,

41, 47.   Claims 25 & 47 are being amended. Claim 3 is being cancelled.

3. The Rejections are respectfully maintained and reproduced infra for application's

convenience.

Claim Rejections - 35 USC § 103

4.　　The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.　　Claims 1 & 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Muto(US 2002/0116480) , and Tabb (US 6735399 B2) , Kinoshita(2003/0107762) in

view of Kurtz (2002/0075500),

Regarding claim 1, Muto teaches a method of providing email messages to a printing

device, *(Muto discloses the present invention has been developed to solve the*

above mentioned problems, and the first object of the present invention is to

provide a data transfer process apparatus, a device, a network system, a data

transfer method, and a storage medium capable of having the user who manages

the device recognize the status of the device at an appropriate timing by

transmitting by electronic mail the transmission data generated according to the

message for the status information about the device based on the status change

of the device and the destination information; Page 1 paragraph 10) said method

comprising attaching a memory module storing said email messages to a printing

device consumable.

Muto does not specifically teach method comprising attaching a memory module storing

said email messages to a printing device consumable.

However Tabb does teach a method comprising attaching a memory module storing

said code to a printing device consumable.

(Tab discloses this invention can also be used to change machine setup and

aging algorithms to solve problems post-launch which may or may not be related

to the particular CRU 1 which contains the CRUM 30. For example, a toner

cartridge CRUM may provide the above described software code updates for the

operation of a CRU 1. This is quite desirable as toner cartridges are typically

replaced much more often than printer cartridges. Thus, a post-launch software

update or upgrade can be resident in a machine 100 at a much earlier time than if

it was distributed by a less often replaced CRU 1; Column 6 lines 7-16)

It would be obvious to a person of ordinary skill in the art at the time of the invention to

modify the Muto's email data transfer system to include the replaceable consumable

printing device with memory of Tabb. One of ordinary skill in the art would have been

motivated to make this modification in order to have a more efficient and direct way to

make software upgrades to deal with errors, toner/printer problems, manufacturer

information changes of both printer and printing device consumables, without having to

make a physical visit by a technician.

Tabb discloses many machines have replaceable sub-assemblies. Printing machines

for example may have a number of replaceable sub-assemblies such as a fuser print

cartridge, a toner cartridge, or an automatic document handler. These subassemblies

may be arranged as a unit called a cartridge, and if intended for replacement by the

customer or machine owner, may be referred to as a CRU. Examples of a CRU may

include a printer cartridge, toner cartridge, or transfer assembly unit. It may be desirable

for a CRU design to vary over the course of time due to manufacturing changes or to

solve post launch problems with either: the machine, the CRU, or a CRU and machine

interaction. Further, design optimizations may be recognized subsequent to design

launch and machine sale, that a relatively simple code update might realize. However,

solving these problems, or providing optimization updates, generally requires a field call;

Column 1 lines 41-47)

uploading said email messages from the memory module of the printing device

consumable to the printing device; and transmitting said email messages from the

printing device to a recipient to indicate a condition relating to the printing device.

Neither Mutto nor Tabb explicitly discloses emails being stored on a memory

module.

However Kinoshita teaches emails being stored on memory.   **(Kinoshita**

discloses the memory section 5A stores at least data needed to download an e-

mail addressed to the user from the mail server 60. Data needed to download an

e-mail, as shown in FIG. 9B, consists of data representing connection information

for connecting the printer 40 to the mail server 60, a user ID, a password, an e-

mail address and so forth; Page 8 paragraph 229. The index generating section

44A accesses the mail server 60 for which the user has made a contract by using

data read from the memory card 5 by the reading apparatus 45. The index

generating section 44A downloads e-mails addressed to the user from the

accessed mail server 60 and stores them in the mail buffer 53. The index

generating section 44A generates data of the index screen which shows the index

of an "unopened" e-mail in those e-mails downloaded. The index generating

section 44A then sends the generated data of the index screen to the panel

controller 43;   Page 9 Paragraph 238 & 239.)

Further it would be obvious to a person of ordinary skill in the art at the time of

the invention to modify the Muto's email data transfer system and Tab's replaceable

consumable printing device with memory to include Kinoshita's Printing system. One of

ordinary skill in the art would have been motivated to make this modification in order to

show emails can be stored in a removable/remote memory and transmitting email to a

printer's memory.   This will allows for easier printing of emails at any given time.

        Mutto, Tabb, nor Kinoshita explicitly discloses <u>uploading said email messages</u>

<u>from the memory module of the printing device consumable to the printing device; and</u>

<u>transmitting said email messages from the printing device to a recipient to indicate a</u>

<u>condition relating to the printing device.</u>

However the combination with Kurtz does teach <u>uploading said email messages from</u>

<u>the memory module of the printing device consumable to the printing device; and</u>

<u>transmitting said email messages from the printing device to a recipient to indicate a</u>

<u>condition relating to the printing device. **_(Kurtz does teach in embodiments of the_**</u>

present invention, various methods and systems are envisioned. For example,

the memory storage device may include a contact for ordering a replacement

CRU and the printing machine may print a document including at least the

identification code of the CRU and a contact for ordering a replacement CRU

upon a condition in the CRU. The printing machine may send an electronic mail

message including at least one of the identification code of the CRU and a

contact for ordering a replacement CRU to a computer. The CRU may be a toner

cartridge and the memory storage device may include a contact for ordering a

replacement toner cartridge and the printing machine may print a document

including at least the identification code of the toner cartridge and a contact for

ordering a replacement toner cartridge. The printing machine may print a

document including a URL address for electronic ordering of a CRU; or a URL

address for obtaining instructions on obtaining a replacement CRU; Paragraph

46)

It would be obvious to a person of ordinary skill in the art at the time of the invention to modify Muto, Tabb and Kinoshita to include Kurtz's replaceable consumable printing device system which can also send email notifications. One of ordinary skill in the art would have been motivated to make this modification in order to have a more efficient and direct way to notify users about errors, problems, consumption and manufacturer information of printing device consumables.

A user may be informed when a marking material in a CRU is at a level too low to confidently print any further jobs. Once a user is signaled of a problem, a further problem is that, at a time of recognized need, the user may not have the necessary information readily in their possession in order to make a decision with respect to a replacement CRU. For example, the user may not possess the manufacturer's recommended CRU replacement model, the user may not know where to order the CRU, the user may not have the CRU manufacturer or vendor(s) contact information, the user may not know how to remove and recycle the CRU, or the user may not know how to install the replacement CRU. Such beneficial information is most useful when a user is notified that a CRU will soon run out of a substance or when the CRU is at or near the end of its useful life. In view of these problems, the present invention proposes a method and system which provides a user with various useful information concerning the CRU in the form of a printed document. The method and system makes the CRU information available to the user at the source of the problem, and at an identified time

of need in the printing machine. The information is provided in one convenient place, in

the form of a printed document; Kurtz Page 1 Paragraph 3 & 4.

Therefore, it would be obvious to combine Muto, Tabb, Kinoshita, and Kurtz to

arrive to the limitations of claim 1.

Regarding claim 2, Muto,Tabb Kinoshita in view of Kurtz taught the method of claim 1,

as described above. Tabb also teaches further comprising: installing said printing

device consumable in said printing device; and interfacing said printing device and said

memory module *(Fig.1 element 1, & 100)*. **(*Tabb discloses the present invention**

relates to utilizing memory provided in a machine replaceable sub-assembly to be

one medium of distribution for software code updates to that machine relating as

to how that machine should use that replaceable sub-assembly. In one

embodiment, there is provided a replaceable sub-assembly for use in a machine

at various setpoints including a memory and further including upgraded

executable instruction suitable for directing the machine to use the replaceable

sub-assembly with different setpoints, where the upgraded executable instruction

is stored in the memory. In this way, the replaceable sub-assembly becomes the

medium for it's own or another's software updates ; Abstract)

(Cancelled) Regarding claim 3, Muto,Tabb in view of Kinoshita taught the method of

claim 2, as described above. Kinoshita also teaches further comprising uploading said

email messages from said memory module to a memory of said printing device. .

**(Kinoshita discloses the memory section 5A stores at least data needed to
download an e-mail addressed to the user from the mail server 60. Data needed to
download an e-mail, as shown in FIG. 9B, consists of data representing
connection information for connecting the printer 40 to the mail server 60, a user
ID, a password, an e-mail address and so forth; Page 8 paragraph 229. The index
generating section 44A accesses the mail server 60 for which the user has made
a contract by using data read from the memory card 5 by the reading apparatus
45. The index generating section 44A downloads e-mails addressed to the user
from the accessed mail server 60 and stores them in the mail buffer 53. The index
generating section 44A generates data of the index screen which shows the index
of an "unopened" e-mail in those e-mails downloaded. The index generating
section 44A then sends the generated data of the index screen to the panel
controller 43;   Page 9 Paragraph 238 & 239.)**

6.   Claims 7-16, 25-28, 41, 45-47, and 51-53 are rejected under 35 U.S.C. 103(a) as
being unpatentable over Muto(US 2002/0116480) , and Tabb (US 6735399 B2) in view
of Kinoshita(2003/0107762),

Regarding claim 7, Muto,Tabb in view of Kinoshita teaches a method for providing email
messages for email alerts from a printing device***(Muto fig. 10), (Muto discloses the
present invention has been developed to solve the above mentioned problems,
and the first object of the present invention is to provide a data transfer process***

apparatus, a device, a network system, a data transfer method, and a storage

medium capable of having the user who manages the device recognize the status

of the device at an appropriate timing by transmitting by electronic mail the

transmission data generated according to the message for the status information

about the device based on the status change of the device and the destination

information; Page 1 paragraph 10) said method comprising: storing email messages

on a memory module; attaching said memory module to a printing device consumable;

installing said printing device consumable with attached memory module in a printing

device; *(Tabb discloses the CRU 1, as already mentioned, is removable from the*

machine 100 and can be replaced by another CRU 1 if any of the process

elements located therein begin to deteriorate. The CRU 1 has a memory chip or

memory 30, as shown in FIG. 3, in the form of an EEPROM (Electrically Erasable

Programmable Read Only Memory) mounted in the top cover of the CRU 1.

Contact pads 31 are provided on the memory chip 30 so that, when the CRU 1 is

inserted into the machine 100, the memory chip 30 is automatically connected to

the machine control unit/CPU via a terminal block 32 on a part 33 of the machine

100; Column 4 lines 26-36)

and interfacing said memory module with said printing device. *(Tabb discloses*

Indeed, in one embodiment the software which is installed from the CRUM 30 to

the CPU 41 and its memory 42 has nothing to do with the medium or media of

distribution i.e. the the CRU 1; Column 6 lines 17-20)

Mutto does not explicitly teach storing attaching said memory module to a printing

device consumable; installing said printing device consumable with attached memory

module in a printing device; and interfacing said memory module with said printing

device.

However Tabb does teach storing attaching said memory module to a printing device

consumable; installing said printing device consumable with attached memory module

in a printing device; and interfacing said memory module with said printing device.

It would be obvious to a person of ordinary skill in the art at the time of the invention to

modify the Muto's email data transfer system to include the replaceable consumable

printing device with memory of Tabb. One of ordinary skill in the art would have been

motivated to make this modification in order to have a more efficient and direct way to

make software upgrades to deal with errors, toner/printer problems, manufacturer

information changes of both printer and printing device consumables, without having to

make a physical visit by a technician.

Tabb discloses many machines have replaceable sub-assemblies. Printing machines

for example may have a number of replaceable sub-assemblies such as a fuser print

cartridge, a toner cartridge, or an automatic document handler. These subassemblies

may be arranged as a unit called a cartridge, and if intended for replacement by the

customer or machine owner, may be referred to as a CRU. Examples of a CRU may

include a printer cartridge, toner cartridge, or transfer assembly unit. It may be desirable

for a CRU design to vary over the course of time due to manufacturing changes or to

solve post launch problems with either: the machine, the CRU, or a CRU and machine

interaction. Further, design optimizations may be recognized subsequent to design

launch and machine sale, that a relatively simple code update might realize. However,

solving these problems, or providing optimization updates, generally requires a field call;

Column 1 lines 41-47)

Neither Mutto or Tabb specifically teaches emails being stored on a memory module.

However Kinoshita teaches emails being stored on memory.   **(Kinoshita discloses the**

memory section 5A stores at least data needed to download an e-mail addressed

to the user from the mail server 60. Data needed to download an e-mail, as shown

in FIG. 9B, consists of data representing connection information for connecting

the printer 40 to the mail server 60, a user ID, a password, an e-mail address and

so forth; Page 8 paragraph 229. The index generating section 44A accesses the

mail server 60 for which the user has made a contract by using data read from the

memory card 5 by the reading apparatus 45. The index generating section 44A

downloads e-mails addressed to the user from the accessed mail server 60 and

stores them in the mail buffer 53. The index generating section 44A generates

data of the index screen which shows the index of an "unopened" e-mail in those

e-mails downloaded. The index generating section 44A then sends the generated

data of the index screen to the panel controller 43;   Page 9 Paragraph 238 & 239.)

        Further it would be obvious to a person of ordinary skill in the art at the time of

the invention to modify the Muto's email data transfer system and Tab's replaceable

consumable printing device with memory to include Kinoshita's Printing system. One of

ordinary skill in the art would have been motivated to make this modification in order to

show emails can be stored in a removable/remote memory and transmitting email to a

printer's memory.   This will allows for easier printing of emails at any given time.

Therefore, it would be obvious to combine Muto, Tabb, and Kinoshita to arrive to

the limitations of claim 7.

Regarding claim 8, Muto, Tabb and Kinoshita taught the method of claim 7, as

described above. Tabb further teaches wherein said printing device consumable

comprises a toner cartridge. *(Tabb discloses examples of a CRU may include a*

printer cartridge, toner cartridge, or transfer assembly unit; Column 1 lines 38-40)

Regarding claim 9, Muto, Tabb and Kinoshita taught the method of claim 7, as

described above. Kinoshita also teaches further comprising uploading said email

messages from said memory module to a memory unit of said printing device.

(Kinoshita discloses the memory section 5A stores at least data needed to

download an e-mail addressed to the user from the mail server 60. Data needed to

download an e-mail, as shown in FIG. 9B, consists of data representing

connection information for connecting the printer 40 to the mail server 60, a user

ID, a password, an e-mail address and so forth; Page 8 paragraph 229. The index

generating section 44A accesses the mail server 60 for which the user has made

a contract by using data read from the memory card 5 by the reading apparatus

45. The index generating section 44A downloads e-mails addressed to the user

from the accessed mail server 60 and stores them in the mail buffer 53. The index

generating section 44A generates data of the index screen which shows the index

of an "unopened" e-mail in those e-mails downloaded. The index generating

section 44A then sends the generated data of the index screen to the panel

controller 43;   Page 9 Paragraph 238 & 239.)

Regarding claim 10, Muto, Tabb and Kinoshita taught the method of claim 9, as

described above. Muto further teaches comprising sending an email alert to one or

more recipients using one of said email messages indicative of a condition of said

printing device. *(Muto fig.10, fig, 11)*

Regarding claim 11, Muto, Tabb and Kinoshita taught the method of claim 10, as

described above. Muto further teaches wherein said email messages comprise fields

for containing printing device information. *(Muto discloses in FIG. 10, reference*

numeral 1001 denotes a mail header portion, that is, a data portion containing the

transmission information about electronic mail, and comprises the information

indicated by 1002 to 1005; Page 5 paragraph 65 lines 5-8)

Regarding claim 12, Muto, Tabb and Kinoshita taught the method of claim 11, as

described above. Muto further teaches wherein said printing device information

comprises an identification of said printing device. *(Muto discloses in FIG. 10,*

reference numeral 1001 denotes a mail header portion, that is, a data portion

containing the transmission information about electronic mail, and comprises the

information indicated by 1002 to 1005; Page 5 paragraph 65 lines 5-8)

Regarding claim 13, Muto, Tabb and Kinoshita taught the method of claim 11, as

described above. Muto further teaches wherein said printing device information

comprises a quantification of a remaining amount of a consumable. *(Muto discloses*

FIG. 6 shows an example of the status message data showing each status of the

device stored in the device control unit of the device shown in FIG. 1 according to

the first embodiment of the present invention; Page 20 paragraph 20)

Regarding claim 14, Muto, Tabb and Kinoshita taught the method of claim 11, as

described above. Wherein said email message comprises an order for additional

consumables sent to a provider of said consumables.

Muto, Tabb and Kinoshita do not explicitly teach wherein said email message comprises

an order for additional consumables sent to a provider of said consumables.

However Kurtz does teach wherein said email message comprises an order for

additional consumables sent to a provider of said consumables.

(Kurz discloses For machines connected to a PC/network, at S310, an electronic

e-mail message is sent to a user(s) indicating the predetermined information, for

example, a message indicating low CRU life for a particular CRU along with

information for ordering a replacement CRU including identification number and

contact information including vendor(s), manufacturer(s), or third parties

including their respective address, phone number, facsimile number, e-mail

address, Uniform Resource Locator (URL) address, and combinations thereof;

Page 3 paragraph 31 lines 1-10)

Regarding claim 15, Muto, Tabb and Kinoshita the method of claim 10, as described

above. Muto also teaches wherein said sending an email alert comprises: monitoring

operation of said printing device for occurrence of a trigger event; inserting said printing

device information into said email messages; and sending said email alert using said

email messages in response to said trigger event, wherein said email messages are

specific to the trigger event detected. *(Muto discloses FIG. 10 shows an example of*

transmitting electronic mail when an error occurs in the device generated by the

network control unit of the device shown in FIG. 7 according to the first and third

embodiments of the present invention; Page 2 Paragraph 24)

Regarding claim 16, Muto, Tabb and Kinoshita taught the method of claim 15, as

described above. Muto further teaches comprising receiving user input to specify a list

of trigger events. *(Muto fig. 8, & 9)*

Regarding claim 25, Muto, Tabb and Kinoshita taught the method of claim 9, as

described above. Muto further teaches wherein said uploading said email message

elements to printing device memory comprises: determining if previous email message

elements already exist in said printing device memory; *(Mutu discloses the mail*

notification setting information obtaining unit 1108 obtains the mail notification

setting information set by the client apparatus 1301 through the network interface

1114. The mail notification setting information registration unit 1109 updates the

mail notification setting information stored in the mail notification setting

information memory 1107 according to the mail notification setting information

obtained by the mail notification setting information obtaining unit 1108. In

addition, if a mail notification condition that, for example, a status notification is

issued only when an error occurs is changed in the above mentioned mail

notification setting information, then the device status notification condition

setting unit 1110 sets a status notification condition of the device 1101 notified by

the device control unit 1102; Page 6 paragraph 85) and uploading said email

message elements to printing device memory if no previous email message elements

are found. *(Mutto discloses in the network control unit 103, the device status*

change detection unit 107 obtains the information (status information) about the

status of the device 101 from the device control unit 102. The mail message

generation unit 108 generates transmission data to be transmitted to the client

apparatus 301 according to the information about the status of the device 101

obtained from the device status change detection unit 107, and the notification

information (destination information). Furthermore, the mail message generation

unit 108 sets the reply destination address of the electronic mail in the above

mentioned transmission data. The reply destination address refers to the address

to which an answer is transmitted in response to the electronic mail; Page 3

paragraph 41, 43)

Regarding claim 26, Muto, Tabb and Kinoshita taught the method of claim 9, as

described above. Muto further teaches wherein said uploading said email message

elements to printing device memory comprises: determining if previous email messages

already exist in said memory unit of said printing device; and performing a replacement

action if previous email message elements are found. *(Muto discloses in the network*

control unit 103, the device status change detection unit 107 obtains the

information (status information) about the status of the device 101 from the

device control unit 102. The mail message generation unit 108 generates

transmission data to be transmitted to the client apparatus 301 according to the

information about the status of the device 101 obtained from the device status

change detection unit 107, and the notification information (destination

information). Furthermore, the mail message generation unit 108 sets the reply

destination address of the electronic mail in the above mentioned transmission

data. The reply destination address refers to the address to which an answer is

transmitted in response to the electronic mail; Page 3 paragraph 41, 43)

Regarding claim 27, Muto, Tabb and Kinoshita taught the method of claim 26, as

described above. Muto further teaches wherein said performing a replacement action

comprises replacing one or more of said previous email messages with one or more

email messages from said memory module. *(Muto discloses li step S1502, the*

network control unit 1103 compares the contents between the received mail

notification setting information and the mail notification setting information

stored in the mail notification setting information memory 1107 in the network

control unit 1103. If it is determined that there is a change in the mail notification

setting information, control is passed to step S1503. If it is determined that there

is no change in the mail notification setting information, then the process

terminates; Page 7 Paragraph 101)

Regarding claim 28, Muto, Tabb and Kinoshita teaches the method of claim 26, as

described above. Muto further teaches wherein said performing a replacement action

comprises adding one or more of said email messages from said memory module to

said previous email messages. *(Moto discloses step S1502, the network control unit*

1103 compares the contents between the received mail notification setting

information and the mail notification setting information stored in the mail

notification setting information memory 1107 in the network control unit 1103. If it

is determined that there is a change in the mail notification setting information,

control is passed to step S1503. If it is determined that there is no change in the

mail notification setting information, then the process terminates; Page 7

Paragraph 101)

Regarding claim 47, Muto teaches a printing device comprising: a printing device

controller with an email engine *(Muto fig. 1 element 103 & element 108)* for using

email messages provided by a memory module attached to a printing device

consumable; a printing device memory storing said email engine; and a printing device

interface disposed and configured to interface and communicate with said memory

module attached to a printing device consumable supplied to said printing device

Wherein said printing device controller is configured to access email messages

in said memory module attached to said consumable, load said email messages

into said printing device memory and selectively transmit said email messages

using said email engine.

(Muto discloses **additionally, according to the above mentioned conventional**

technology, when the status of the device is limited to a predetermined state and

notified of by electronic mail, it is necessary to set a notification condition for

each status of the device, thereby introducing the problem that the setting load

of the user becomes heavier with an increasing number of types of status; Page

1 paragraph 8. Muto further discloses FIG. 10 shows an example of transmitting

electronic mail when an error occurs in the device generated by the network

control unit of the device shown in FIG. 7 according to the first and third

embodiments of the present invention; Page 2 Paragraph 24)

Mutto does not explicitly teach a memory module attached to a printing device

consumable; a printing device memory storing said email engine; and a printing device

interface disposed and configured to interface and communicate with said memory

module attached to a printing device consumable supplied to said printing device.

However Tabb does teach a memory module attached to a printing device consumable; a printing device memory storing said email engine; and a printing device interface disposed and configured to interface and communicate with said memory module attached to a printing device consumable supplied to said printing device. .

(Tabb discloses the CRU 1, as already mentioned, is removable from the machine 100 and can be replaced by another CRU 1 if any of the process elements located therein begin to deteriorate. The CRU 1 has a memory chip or memory 30, as shown in FIG. 3, in the form of an EEPROM (Electrically Erasable Programmable Read Only Memory) mounted in the top cover of the CRU 1. Contact pads 31 are provided on the memory chip 30 so that, when the CRU 1 is inserted into the machine 100, the memory chip 30 is automatically connected to the machine control unit/CPU via a terminal block 32 on a part 33 of the machine 100; Column 4 lines 26-36)

It would be obvious to a person of ordinary skill in the art at the time of the invention to modify the Muto's email data transfer system to include the replaceable consumable printing device with memory of Tabb. One of ordinary skill in the art would have been motivated to make this modification in order to have a more efficient and direct way to make software upgrades to deal with errors, toner/printer problems, manufacturer information changes of both printer and printing device consumables, without having to make a physical visit by a technician.

Tabb discloses many machines have replaceable sub-assemblies. Printing machines for example may have a number of replaceable sub-assemblies such as a fuser print

cartridge, a toner cartridge, or an automatic document handler. These subassemblies

may be arranged as a unit called a cartridge, and if intended for replacement by the

customer or machine owner, may be referred to as a CRU. Examples of a CRU may

include a printer cartridge, toner cartridge, or transfer assembly unit. It may be desirable

for a CRU design to vary over the course of time due to manufacturing changes or to

solve post launch problems with either: the machine, the CRU, or a CRU and machine

interaction. Further, design optimizations may be recognized subsequent to design

launch and machine sale, that a relatively simple code update might realize. However,

solving these problems, or providing optimization updates, generally requires a field call;

Column 1 lines 41-47)

Neither Mutto or Tabb specifically teaches emails being stored on a memory module
and loaded onto printing device memory.

However Kinoshita teaches emails being stored on a memory module and loaded onto
printing device memory.   **(Kinoshita discloses the memory section 5A stores at
least data needed to download an e-mail addressed to the user from the mail
server 60. Data needed to download an e-mail, as shown in FIG. 9B, consists of
data representing connection information for connecting the printer 40 to the mail
server 60, a user ID, a password, an e-mail address and so forth; Page 8
paragraph 229. The index generating section 44A accesses the mail server 60 for
which the user has made a contract by using data read from the memory card 5
by the reading apparatus 45. The index generating section 44A downloads e-
mails addressed to the user from the accessed mail server 60 and stores them in**

the mail buffer 53. The index generating section 44A generates data of the index

screen which shows the index of an "unopened" e-mail in those e-mails

downloaded. The index generating section 44A then sends the generated data of

the index screen to the panel controller 43;   Page 9 Paragraph 238 & 239.)

Further it would be obvious to a person of ordinary skill in the art at the time of

the invention to modify the Muto's email data transfer system and Tab's replaceable

consumable printing device with memory to include Kinoshita's Printing system. One of

ordinary skill in the art would have been motivated to make this modification in order to

show emails can be stored in a removable/remote memory and transmitting email to a

printer's memory.   This will allows for easier printing of emails at any given time.

Therefore, it would be obvious to combine Muto, Tabb, and Kinoshita to arrive to

the limitations of claim 47.

Regarding claim 51, Muto, Tabb and Kinoshita taught the printing device of claim 47,

as described above. Kinoshita further teaches wherein said printing device interface

comprises a wired interface. . **(Kinoshita discloses the memory section 5A stores**

at least data needed to download an e-mail addressed to the user from the mail

server 60. Data needed to download an e-mail, as shown in FIG. 9B, consists of

data representing connection information for connecting the printer 40 to the mail

server 60, a user ID, a password, an e-mail address and so forth; Page 8

paragraph 229. The index generating section 44A accesses the mail server 60 for

which the user has made a contract by using data read from the memory card 5

by the reading apparatus 45. The index generating section 44A downloads e-

mails addressed to the user from the accessed mail server 60 and stores them in

the mail buffer 53. The index generating section 44A generates data of the index

screen which shows the index of an "unopened" e-mail in those e-mails

downloaded. The index generating section 44A then sends the generated data of

the index screen to the panel controller 43;   Page 9 Paragraph 238 & 239.)

Regarding claim 52, Muto, Tabb and Kinoshita taught the printing device of claim 47, as

described above. Further comprising a user interface for controlling said printing device.

(Muto discloses in the network control unit 1103, the mail notification setting

screen generation unit 1105 generates GUI (Graphical User Interface) data

displayable on the GUI of the WEB browser, etc. operating in the client apparatus

1301. The GUI data generated by the mail notification setting screen generation

unit 1105 is transmitted to the client apparatus 1301 through the network

interface 1114, thereby providing a GUI for setting mail notification as shown in

FIG. 13 in the client apparatus 1301. The WEB browser of the client apparatus

1301 interprets the received GUI data, and displays a screen as shown in FIG. 13.

Thus, the user can set mail notification without an application program

exclusively used to set mail notification; Column 6 paragraph 82)

7.   Claim 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Muto (US

2002/0116480) ,Tabb (US 6735399 B2) , Kinoshita(2003/0107762) in view of Kurz (US

2002/0075500) .

It would be obvious to a person of ordinary skill in the art at the time of the invention to

modify Muto, Tabb and Kinoshita to include Kurtz's replaceable consumable printing

device system which can also send email notifications. One of ordinary skill in the art

would have been motivated to make this modification in order to have a more efficient

and direct way to notify users about errors, problems, consumption and manufacturer

information of printing device consumables.

A user may be informed when a marking material in a CRU is at a level too low to

confidently print any further jobs. Once a user is signaled of a problem, a further

problem is that, at a time of recognized need, the user may not have the necessary

information readily in their possession in order to make a decision with respect to a

replacement CRU. For example, the user may not possess the manufacturer's

recommended CRU replacement model, the user may not know where to order the

CRU, the user may not have the CRU manufacturer or vendor(s) contact information,

the user may not know how to remove and recycle the CRU, or the user may not know

how to install the replacement CRU. Such beneficial information is most useful when a

user is notified that a CRU will soon run out of a substance or when the CRU is at or

near the end of its useful life. In view of these problems, the present invention proposes

a method and system which provides a user with various useful information concerning

the CRU in the form of a printed document. The method and system makes the CRU

information available to the user at the source of the problem, and at an identified time

of need in the printing machine. The information is provided in one convenient place, in

the form of a printed document; Kurtz Page 1 Paragraph 3 & 4.

Therefore, it would be obvious to combine Muto, Tabb, Kinoshita, and Kurtz's to

arrive to the limitations of claim 14.

8.   Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muto,

Tabb, Kinoshita in view of Narushima (US Patent 6831755).

Regarding claim 29, Muto, Tabb and Kinoshita taught the method of claim 26, as

described above. Wherein said performing a replacement action requires an

administration setting, password, or other form of authentication.

Muto, Tabb, Kinoshita do not explicitly teach wherein said performing a replacement

action requires an administration setting, password, or other form of authentication.

However Narushima teaches wherein said performing a replacement action requires an

administration setting, password, or other form of authentication.

(Narushima discloses a step of checking the password before updating/rewriting software program column 17 lines 12-25)

It would be obvious to a person of ordinary skill in the art at the time of the invention to modify Muto, Tabb and Kinoshita to include Narushima. One of ordinary skill in the art would have been motivated to make this modification in order to have authorized personnel making the updates.

Therefore, it would be obvious to combine Muto, Tabb, Kinoshita and Narushima to arrive to the limitations of claim 29.

9. Claims 41, 45, & 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabb (US 6735399 B2) in view of Kinoshita(2003/0107762).

Regarding claim 41, Tab teaches discloses a consumable for use with a printing device, said consumable comprising: a printing device consumable; a memory module attached to said printing device consumable; *(Tabb discloses the CRU 1, as already mentioned, is removable from the machine 100 and can be replaced by another CRU 1 if any of the process elements located therein begin to deteriorate. The CRU 1 has a memory chip or memory 30, as shown in FIG. 3, in the form of an EEPROM (Electrically Erasable Programmable Read Only Memory) mounted in the top cover of the CRU 1. Contact pads 31 are provided on the memory chip 30 so that, when the CRU 1 is inserted into the machine 100, the memory chip 30 is*

automatically connected to the machine control unit/CPU via a terminal block 32

on a part 33 of the machine 100; Column 4 lines 26-36)

Tabb does not specifically teach emails being stored on a memory module.

However Kinoshita teaches emails being stored on memory.   **(Kinoshita discloses the memory section 5A stores at least data needed to download an e-mail addressed to the user from the mail server 60. Data needed to download an e-mail, as shown in FIG. 9B, consists of data representing connection information for connecting the printer 40 to the mail server 60, a user ID, a password, an e-mail address and so forth; Page 8 paragraph 229. The index generating section 44A accesses the mail server 60 for which the user has made a contract by using data read from the memory card 5 by the reading apparatus 45. The index generating section 44A downloads e-mails addressed to the user from the accessed mail server 60 and stores them in the mail buffer 53. The index generating section 44A generates data of the index screen which shows the index of an "unopened" e-mail in those e-mails downloaded. The index generating section 44A then sends the generated data of the index screen to the panel controller 43;   Page 9 Paragraph 238 & 239.)**

Further it would be obvious to a person of ordinary skill in the art at the time of the invention to modify the Muto's email data transfer system and Tab's replaceable consumable printing device with memory to include Kinoshita's Printing system. One of ordinary skill in the art would have been motivated to make this modification in order to show emails can be stored in a removable/remote memory and transmitting email to a printer's memory.   This will allows for easier printing of emails at any given time.

Therefore, it would be obvious to combine Tabb, and Kinoshita to arrive to the limitations of claim 41.

Regarding claim 45, Tabb in view of Kinoshita taught the consumable of claim 41, as described above. Tabb further comprising a wired interface for said memory module for interfacing and communicating with a printing device. *(Tabb discloses the CRU 1, as already mentioned, is removable from the machine 100 and can be replaced by another CRU 1 if any of the process elements located therein begin to deteriorate. The CRU 1 has a memory chip or memory 30, as shown in FIG. 3, in the form of an EEPROM (Electrically Erasable Programmable Read Only Memory) mounted in the top cover of the CRU 1. Contact pads 31 are provided on the memory chip 30 so that, when the CRU 1 is inserted into the machine 100, the memory chip 30 is automatically connected to the machine control unit/CPU via a terminal block 32 on a part 33 of the machine 100; Column 4 lines 26-36)*

Regarding claim 46, Tabb in view of Kinoshita taught the consumable of claim 41, as described above. Kininoshita also teaches further comprising an email message interface stored on said memory module which, when uploaded to a printing device, allows access and use of said email messages on said memory module. **(Kinoshita discloses the memory section 5A stores at least data needed to download an e-mail addressed to the user from the mail server 60. Data needed to download an e-mail, as shown in FIG. 9B, consists of data representing connection information**

for connecting the printer 40 to the mail server 60, a user ID, a password, an e-mail address and so forth; Page 8 paragraph 229. The index generating section 44A accesses the mail server 60 for which the user has made a contract by using data read from the memory card 5 by the reading apparatus 45. The index generating section 44A downloads e-mails addressed to the user from the accessed mail server 60 and stores them in the mail buffer 53. The index generating section 44A generates data of the index screen which shows the index of an "unopened" e-mail in those e-mails downloaded. The index generating section 44A then sends the generated data of the index screen to the panel controller 43;   Page 9 Paragraph 238 & 239.)

10.   Claim 42 rejected under 35 U.S.C. 103(a) as being unpatentable over Tabb, Kinoshita in view of Hatasa (US 2003/0214546).

Regarding claim 42, Tabb and Kinoshita taught the consumable of claim 41, as described above. Comprising a wireless interface for said memory module for interfacing and communicating with a printing device.

Tabb and Kinoshita do not explicitly teach comprising a wireless interface for said memory module for interfacing and communicating with a printing device.

However Hatasa teaches comprising a wireless interface for said memory module for interfacing and communicating with a printing device. *(Hatasa discloses referring to*

FIG. 8, in the bottom portion of the internal space of the printer main assembly

201, there is disposed a secondary scan mechanism (unshown) comprising a

feed roller 204, a driving motor 205, etc. A sheet of printing paper P is conveyed

frontward so that it opposes the ink jet head 203 from underneath; Page 4

Paragraph 64. Hatasa also discloses further, in the top portion of the internal

space of the printer main assembly 210, there is disposed a single

communication unit 206, as both a power supplying means and a wireless

communicating means. Not only does this communication unit 206

electromagnetically induce electric current in the corresponding induction coil

138 of the ink cartridge 100, but also it wirelessly exchanges predetermined types

of information with the first portion 132 of the radio antenna 131 of the ink

cartridge 100. However, there a four ink cartridges 100 different in type, which are

moved in the direction in which they are aligned as described above. Therefore,

the single communication unit 206 wirelessly communicates with each of the four

ink cartridges 100 as each ink cartridge 100 is moved into the area in which the

communication unit 206 falls into communication range RS of each ink cartridge

100, as shown in FIG. 9.; Page 4 paragraph 64)

It would be obvious to a person of ordinary skill in the art at the time of the

invention to modify Tabb, Kinoshita, to include the wireless interface of Hatasa.   One of

ordinary skill in the art would have been motivated to make this modification in order to

eliminate the fear that the data communication between the printer main assembly 201

and the ink container 100 might be unsatisfactory due to the electrical contact errors

between them traceable to the ink 104; Hatasa Page 5 Paragraph 84.

Therefore, it would be obvious to combine Tabb, Kinoshita and Hatasa to arrive

to the limitations of claim 42.

11.   Claims 43 & 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Tabb (US 6735399 B2), Kinoshita(2003/0107762) , Hatasa (US 2003/0214546) in view

of Richards (US Patent 6532351).

Regarding claim 43, Tabb, Kinoshita, Hatasa taught the consumable of claim 42, as

described above. Tabb, Kinoshita, Hatasa do not specifically teach wherein said

wireless interface comprises a radio frequency interface.

However, Richards teaches wherein said wireless interface comprises a radio frequency

interface. **(Richards discloses the method of communicating with other printer**

component via wireless communication means, such as by infrared or RF;

Column 5 lines 10-32)

It would be obvious to a person of ordinary skill in the art at the time of the invention to

modify Tabb, Kinoshita, and Hatasa's wireless consumable interface to include an

infrared wireless communication interface of Richard.   One of ordinary skill in the art

would have been motivated to make this modification in order to a verity of different

Wireless interfaces which are well known.

Therefore, it would be obvious to combine Tabba, Kinoshita, Hatasa and

Richards to arrive to the limitations of claim 43.

Regarding claim 44, Tabb, Kinoshita, Hatasa, and Richards taught the consumable of

claim 42, as described above. Richards teaches wherein said wireless interface

comprises an infrared interface.

(Richards discloses the method of communicating with other printer component

via wireless communication means, such as by infrared or RF; Column 5 lines 10-

32)

12.   Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muto

(US 2002/0116480), Tabb (US 6735399 B2), Kinoshita (2003/0107762) in view of

Hatasa (US 2003/0214546).

Regarding claim 48, Muto, Tabb and Kinoshita taught the printing device of claim 47, as

described above. Further comprising a wireless interface for said memory module for

interfacing and communicating with a printing device.

Although Muto, Tabb and Kinoshita do not teach comprising a wireless interface for said

memory module for interfacing and communicating with a printing device.

However Hatasa teaches comprising a wireless interface for said memory module for

interfacing and communicating with a printing device. *(Hatasa discloses referring to*

FIG. 8, in the bottom portion of the internal space of the printer main assembly

201, there is disposed a secondary scan mechanism (unshown) comprising a

feed roller 204, a driving motor 205, etc. A sheet of printing paper P is conveyed

frontward so that it opposes the ink jet head 203 from underneath; Page 4

paragraph 64. Hatasa also discloses further, in the top portion of the internal

space of the printer main assembly 210, there is disposed a single

communication unit 206, as both a power supplying means and a wireless

communicating means. Not only does this communication unit 206

electromagnetically induce electric current in the corresponding induction coil

138 of the ink cartridge 100, but also it wirelessly exchanges predetermined types

of information with the first portion 132 of the radio antenna 131 of the ink

cartridge 100. However, there a four ink cartridges 100 different in type, which are

moved in the direction in which they are aligned as described above. Therefore,

the single communication unit 206 wirelessly communicates with each of the four

ink cartridges 100 as each ink cartridge 100 is moved into the area in which the

communication unit 206 falls into communication range RS of each ink cartridge

100, as shown in FIG. 9.; Page 4 paragraph 64)

It would be obvious to a person of ordinary skill in the art at the time of the invention to

modify Muto, Tabb and Kinoshita to include the wireless interface of Hatasa.   One of

ordinary skill in the art would have been motivated to make this modification in order to

eliminate the fear that the data communication between the printer main assembly 201

and the ink container 100 might be unsatisfactory due to the electrical contact errors

between them traceable to the ink 104; Hatasa Page 5 Paragraph 84.

Therefore, it would be obvious to combine Muto, Tabb, Kinoshita and Hatasa to arrive to the limitations of claim 48.

13.   Regarding Claims 49 & 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muto, (US 2002/0116480) Tabb (US 6735399), Kinoshita(2003/0107762) , Hatasa (US 2003/0214546) in view of Richards (US Patent 6532351

Regarding claim 49, Muto, Tabb, Kinoshita and Hatasa taught the printing device of claim 48, as described above. They do not teach wherein said wireless interface comprises a radio frequency interface.

However, Richards teaches wherein said wireless interface comprises a radio frequency interface. **(Richards discloses the method of communicating with other printer component via wireless communication means, such as by infrared or RF; Column 5 lines 10-32)**

It would be obvious to a person of ordinary skill in the art at the time of the invention to modify Muto, Tabb, Kinoshita and Hatasa's wireless consumable interface to include an infrared wireless communication interface of Richards.   One of ordinary skill in the art would have been motivated to make this modification in order to a verity of different Wireless interfaces which are well known.

Therefore, it would be obvious to combine Muto, Tabb, Kinoshita, Hatasa and Richards to arrive to the limitations of claim 49.

Regarding claim 50, Muto, Tabb, Kinoshita and Hatasa taught the printing device of

claim 48, as described above. Richards for the same motivation as claim 49, further

teaches wherein said wireless interface comprises an infrared interface. **(Richards**

discloses the method of communicating with other printer component via

wireless communication means, such as by infrared or RF; Column 5 lines 10-32)

Response to Arguments

14.   Applicant's arguments with respect to claims 1, 2, 7-16, 25-29, 41-52 have been

considered but are moot in view of the new rejection.

Regarding claim 7, Applicant argues that no printing device consumable in Kinoshita

stores email messages. Examiner views Kinoshita explains emails which can be stored

in memory and downloaded to personnel. Tabb explains a printer cartridge with a

memory device attached to it which can store data. Thus the combination explains the

limitations of claim 7.

Regarding claim 47, Applicant makes same argument combination of Muto, Tabb, and

Kinoshita fails to teach or even suggest that printer access email messages stored in

the printer cartridge or that the printer loads emails from print cartridge to the printer.

Examiner views Tabb explains a printer cartridge with a memory device attached to it

which can store data. This data can be transmitted into a printer.   Kinoshita explains

emails which can be stored in memory and downloaded to personnel. Thus having the combination including Mutto would explain the limitations of claim 47. Further, reference Kurtz also shows most of these limitations.

Examiner views the rest of the arguments are very similar, and respectfully disagrees based on the above rejection.

Conclusion

15.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gerald Smarth whose telephone number is (571)270-1923. The examiner can normally be reached on Monday-Friday(7:30am-5:00pm)est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu can be reached on (571)272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/G. S./

Examiner, Art Unit 2446

/Jeffrey Pwu/

Supervisory Patent Examiner, Art Unit 2446